



2613 AO 0430 #2

Attorney Docket No. Case 25 (PREC)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

**RECEIVED**

**WHITE, PATRICK M.**

**FEB 26 2002**

Serial No.: 10/043,423

**Technology Center 2600**

Group Art Unit: Unknown

Filed: 01/10/2002

Examiner: Unknown

For: **DRIVE SHAFT COUPLING**

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**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. § 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. A copy of each reference listed has already been supplied in the grandparent case (Ser. No. 09/860,916, filed May 18, 2001 entitled "Stress-Induced Interposed Connector"). Thus, it is not necessary to again provide such copies with this Information Disclosure Statement. An additional PTO-1449 is attached listing

It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits. Therefore, no certification or fee is required.

## REMARKS

The references listed on the attached P70 Form 1449, except for those mentioned immediately below, were already discussed in Applicant's Grand-parent application.

- |           |                   |                                                                                                                                                                                                                                                                                              |
|-----------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5,876,434 | Flomenblit et al. | shows a medical device comprises of a shape memory alloy (SMA) portion which undergoes a configuration transformation as the alloy is heated to body temperature.                                                                                                                            |
| 5,862,995 | Wu                | shows a high pressure fluid passage seal for internal combustion engine fuel injectors which are activated with a change in temperature.                                                                                                                                                     |
| 5,858,020 | Johnson, et al.   | shows modular prosthesis members being connected with a tube clamp which is activated by elongating the tube through inducing stress, placing it in the bores of a mating component and then releasing the stress. Upon release the mating component expands and locks to a third component. |
| 5,842,312 | Krumme et al.     | shows hysteretic damping apparatus and method using tension elements fabricated from SMAs to cycle through superelastic stress-strain hysteresis to provide energy dissipation.                                                                                                              |
| 5,791,847 | Keto-Tokoi        | shows a plate-like washer of generally annular shape and a method of using the washer for a pre-tensioning device in fasteners that is activated by adding heat to create the tension.                                                                                                       |
| 5,779,707 | Bertholet et al.  | shows a link piece for bony elements comprises a central portion and two anchoring portions rigidly connected to the central portion the shape of which changes by warming to body temperature activating the material to hold the pieces together.                                          |
| 5,779,281 | Kapgan et al.     | shows a technique for forming a connection to an object with a shape memory alloy sleeve to form a connection to another object when recovering to an original shape when activated by heat shrinking the sleeve.                                                                            |
| 5,766,218 | Arnott            | shows a surgical binding device and method of use to promote healing by maintaining a constant stress across the tissue boundaries using a super-elastic alloy with a one way locking mechanism.                                                                                             |
| 5,683,404 | Johnson           | shows a clamp with an internal opening that is enlarged by an external stretching force. A fastenable portion enters the opening and the external stretching force is released allowing the super-elastic clamp to return towards its original size.                                         |
| 5,674,027 | Warnaar           | shows an exaggerated actuation device used in the alignment of a hinge made from SMAs which is activated by heating the device.                                                                                                                                                              |
| 5,662,362 | Kapgan et al.     | shows a swage coupling including a disposable SMA actuator which undergoes shape when heated.                                                                                                                                                                                                |

5,597,378	Jervis	shows a medical device made of stress-induce martensite (SIM) alloy which is held in a deformed configuration for positioning in the human body and releasing the restraint allowing the device to return to it's original shape with no change in temperature.
5,586,983	Sanders et al.	shows a bone clamp which is constructed from SMAS for securing a rod adjacent to a bone including a rod holder which is activated by heat.
5,584,631	Krumme et al.	shows a fastener with a pin and an elastic retainer with a hole wherein the retainer is place onto the end of the pin to retain components together.
5,536,126	Gross	shows an assembly with solid state, phase transformable locking fastener wherein the locking element is activated by heat.
5,507,826	Besselink et al.	shows a prosthesis with SMA locking ring assembly utilized for replacing a body part which is activated by heat.
5,407,322	Charbonnel et al.	shows a variable phase vane with a composite pivot which is joined together by force fitting two components together through the use of a temperature activated SMA
5,395,193	Krumme et al.	shows a fastener with a pin and an elastic belleville washer wherein the washer is place onto the end of the pin to retain components together.
5,385,396	Beck et al.	shows a valve block and method of assembling elements into a valve block for use with slip-controlled brake systems, in which a sealing ball, valve covers or valve seats are inserted into the valve block to be sealed without using force fitting but rather a temperature activated SMA.
5,366,331	Erbes	shows a shape memory lock fastener with a tubular collar and a lock ring surrounding the outer surface of the collar of a bolt which is activated by shrinking the lock ring using temperature.
5,277,435	Krämer et al.	shows a standard shank and method for directly locating rotating cutting tools in a machine tool work spindle by using a temperature activated collar.
5,226,683	Julien et al.	employs an annulus of binary metal or super-elastic material which can be compressed between two surfaces to create a seal. However, the seals do not bend to form its seal.
5,197,720	Renz et al.	shows a stress induced clamping tool for non-positive and high-precision clamping of work pieces.
5,190,546	Jervis	shows different medical devices incorporating SIM alloy elements.
5,120,175	Arbegast et al.	shows a SMA fastener with an elongated shank, a head at the upper end of the shank, and an annular segment at the lower end which is activated by temperature.
5,067,827	Bokel	shows a machine bearing arrangement with form-memory deformable element which is activated by temperature.

4,896,955	Zider et al.	shows an eyeglass frame manufactured from an optimized elastic material.
4,773,680	Krumme	Shows a pipe coupler with temperature deformable SMA seals.
4,665,906	Jervis	shows different medical devices incorporating SIM alloy elements and their method of installation.
4,537,406	Hirasuna	Shows a shape memory back up seal which activates a compliant seal.
4,281,841	Kim et al.	shows a heat recoverable o-ring sealing arrangement for ultra-high vacuum systems.
3,971,566	Levinsohn, deceased et al.	shows a temperature activated hydraulic sealing member and process.
	NDC Corporation	Nitinol SE 508 Data Sheet shows typical properties of superelastic Nitinol at room temperature

The following references are newly cited in the present application and also appear listed in the attached PTO-1449. Copies of these references are enclosed herewith.

5,202,595 Borzone, et al. Shows a dovetail coupling for the shaft of a reamer.

5,499,984 Steiner, et al. Shows a super-elastic shaft with a terminal end having a collet that engages a snap-in detent of a cutting head.

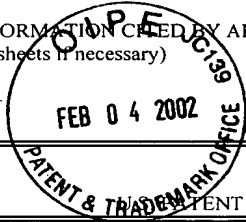
5,693,047 Meyers, et al. Shows a cannulated cutting head with neck having a counter-bore that receives a press-fit shaft.

RESPECTFULLY SUBMITTED

  
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Dec. \_\_, 2001

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office LIST OF DOCUMENTARY INFORMATION CITED BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO.: Case 25 (PREC)	SERIAL NO.: Unknown
	APPLICANT: White, Patrick M.	GROUP: Unknown
	FILING DATE: Unknown	Examiner: Unknown



RECEIVED

PATENT DOCUMENTS - already cited in prior related applications

FEB 26 2002

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	TECHNOLOGY CENTER	DATE APPROPRIATE
	5,876,434	03/02/99	Flomenblit et al.	623	1		08/12/97
	5,862,995	01/26/99	Wu	239	533.2		04/01/96
	5,858,020	01/12/99	Johnson, et al.	623	23		12/05/95
	5,842,312	12/01/98	Krumme et al.	52	167.1		03/01/95
	5,791,847	08/11/98	Ket-Tokoi	411	368		11/30/94
	5,779,707	07/14/98	Bertholet et al.	606	75		10/03/95
	5,779,281	07/14/98	Kapgan et al.	285	148.19		09/11/97
	5,766,218	07/16/98	Arnott	606	151		10/01/96
	5,683,404	11/04/97	Johnson	606	151		06/05/96
	5,674,027	10/07/97	Warnaar	403	404		11/20/95
	5,662,362	09/02/97	Kapgan et al.	285	381.1		11/13/95
	5,597,378	01/28/97	Jervis	606	78		10/02/92
	5,586,983	12/24/96	Sanders et al.	606	61		01/31/94
	5,584,631	12/17/96	Krumme et al.	411	339		03/06/95
	5,536,126	07/16/96	Gross	411	411		06/10/94
	5,507,826	04/16/96	Besselink et al.	623	22		04/11/94
	5,407,322	04/18/95	Charbonnel et al.	415	160		09/24/93
	5,395,193	03/07/95	Krumme et al.	411	339		03/23/93
	5,385,396	01/31/95	Beck et al.	303	119.2		01/03/94
	5,366,331	11/22/94	Erbes	411	433		02/10/93
	5,277,435	01/11/94	Krammer et al.	279	9.1		08/24/92
	5,226,683	07/13/93	Julien et al.	285	363		11/16/90
	5,197,720	03/30/93	Renz et al.	269	48.1		03/22/90
	5,190,546	03/02/93	Jervis	606	78		04/09/91
	5,120,175	06/09/92	Arbegast et al.	411	501		07/15/91
	5,067,827	11/16/91	Bokel	384	537		03/06/90
	4,896,955	01/30/90	Zider	351	41		12/05/88
	4,773,680	09/27/88	Krumme	285	381		09/04/84
	4,665,906	05/19/87	Jervis	128	92		05/21/86
	4,537,406	08/27/85	Hirasuna	277	1		04/27/83
	4,281,841	08/04/81	Kim et al.	277	236		05/30/78
	3,971,566	07/27/76	Levinsohn, deceased et al.	277	206		01/06/75

## U.S. PATENT DOCUMENTS – newly cited in present application

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
		5,203,595	4/20/93	Borzone, et al.	285	325		
		5,499,984	3/19/96	Steiner, et al.	606	80		
		5,693,047	12/2/97	Meyers, et al.	606	80		

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) – Copies already provided

Nitinol SE 508 Data Sheet, Nitinol Devices &amp; Components, Inc. Revision A, ECO 1436

EXAMINER:

DATE CONSIDERED:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.